STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92^{nd} Congress) as amended,

MO-0102989

Aqua Missouri, Inc.

Permit No.

Owner:

Address:	P.O. Box 7017, Jefferson City, MO 65102						
Continuing Authority: Address:	Same as above Same as above						
Facility Name: Facility Address:	Aqua Missouri, Inc. – Brownwood Oaks Wastewater Treatment Facility Schott Road, Jefferson City, MO 65101						
Legal Description: Latitude/Longitude:	NW ½, SW ¼, Sec. 22, T44N, R11W, Cole County +3832387/ -09207541						
Receiving Stream: First Classified Stream and ID: USGS Basin & Sub-watershed No.:	Unnamed tributary to Moreau River (U) Moreau River (P) (00941) (10300102-220002)						
is authorized to discharge from the facility das set forth herein:	escribed herein, in accordance with the effluent limitations and monitoring requirements						
FACILITY DESCRIPTION Outfall #001 – Subdivision – SIC #4952 Aerated septic tank/sludge disposal is by ow Design population equivalent is 16. Design flow is 1,600 gallons per day. Actual flow is 1,000 gallons per day. Design sludge production is 0.3 dry tons/yea							
•	harges under the Missouri Clean Water Law and the National Pollutant Discharge er regulated areas. This permit may be appealed in accordance with Section 644.051.6 of						
October 6, 2006 Effective Date	Doyle Childers, Director, Department of Natural Resources Executive Secretary, Clean Water Commission						
October 5, 2011 Expiration Date MO 780-0041 (10-93)	G. Irene Crawford, Director, Northeast Regional Office						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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PERMIT NUMBER MO-0102989

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until October 6, 2009. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001						
Flow	MGD	*		*	once/quarter***	24hr. estimate
Biochemical Oxygen Demand ₅	mg/L		45	30	once/quarter***	composite**
Total Suspended Solids	mg/L		45	30	once/quarter***	composite**
pH – Units	SU	****		****	once/quarter***	grab
Ammonia as N	mg/L	*		*	once/quarter***	grab
Fecal Coliform (Note 1)	#/100ml	*		*	once/quarter***	grab
Temperature	°C	*		*	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE January 28, 2007. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I & III</u> STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.
- *** Sample once per quarter in the months of March, June, September, and December.
- **** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

Note 1 – Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PAGE NUMBER 3 of 5

PERMIT NUMBER MO-0102989

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective October 7, 2009 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001						
Flow	MGD	*		*	once/quarter***	24hr. estimate
Biochemical Oxygen Demand ₅	mg/L		45	30	once/quarter***	composite**
Total Suspended Solids	mg/L		45	30	once/quarter***	composite**
pH – Units	SU	****		****	once/quarter***	grab
Ammonia as N	mg/L	*		*	once/quarter***	grab
Fecal Coliform (Note 1)	#/100ml	1000		400	once/quarter***	grab
Temperature	°C	*		*	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE <u>January 28, 2010</u>. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I & III</u> STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.
- *** Sample once per quarter in the months of March, June, September, and December.
- **** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

Note 1 – Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.

C. SPECIAL CONDITIONS

- 1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

- 2. All outfalls must be clearly marked in the field.
- 3. Permittee will cease discharge by connection to area-wide wastewater treatment system within 90 days of notice of its availability.
- 4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 μ g/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μ g/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
- 5. Report as no-discharge when a discharge does not occur during the report period.

6. Water Quality Standards

- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses:
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

C. SPECIAL CONDITIONS (continued)

- 7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
 - (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
 - (b) If sludge is not removed by a contract hauler, Permittee is authorized to land apply biosolids that are removed from the domestic wastewater treatment lagoon during lagoon clean-out and maintenance activities. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids from the lagoon. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

D. SCHEDULE OF COMPLIANCE

- 1. The final daily maximum and monthly average Fecal Coliform limits of 400/100ml and 1000/100ml, respectively, shall become effective October 7, 2009. The Effluent Regulation, 10 CSR 20-7.015(10) allows the permittee up to three (3) years from the issuance date of this permit to comply with new or revised National Pollutant Discharge Elimination System (NPDES) or Missouri operating permit limitations based on criteria in the Clean Water Commission Regulations. It states that such compliance "shall be achieved with all deliberate speed and no later than three (3) years from the date of issuance of the permit." Therefore disinfection facilities must be installed if required to meet the limits of this permit.
- 2. If chlorination is the chosen method of disinfection, a Total Residual Chlorine limit will be added to the permit.
- 3. Aqua Missouri, Inc. is to submit a construction permit application and engineering plans and specifications, to the Missouri Department of Natural Resources' Northeast Regional Office by **April 6, 2008** for changes to the Aqua Missouri, Inc. Brownwood Oaks Wastewater Treatment Facility so the discharge from the facility will meet the final effluent limits for Fecal Coliform, and Total Residual Chlorine, if chlorination is the chosen method of disinfection.
- 4. Aqua Missouri, Inc. for the Aqua Missouri, Inc. Brownwood Oaks Wastewater Treatment Facility will meet final effluent limits by **October 6, 2009.**

Date of Fact Sheet: June 26, 2006

Date of Public Notice: August 25, 2006

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0102989

Design sludge production is 0.3 dry tons/year.

FACILITY NAME: ASSLP, Brownwood Oaks WWTF

OWNER NAME: Aqua Missouri, Inc.

LOCATION: NW 1/4, SW 1/4, Sec. 22, T44N, R11W, Cole County

RECEIVING STREAM: Unnamed tributary to the Moreau River (U).

FACILITY CONTACT PERSON: Ms. Tena Hale-Rush TELEPHONE: (573) 634-2699

FACILITY DESCRIPTION

Outfall #001 – Subdivision/Private Sewer Company - SIC #4952 Extended aeration/seasonal chlorination/sludge disposal is by contract hauler. Design population equivalent is 16. Design flow is 1,600 gallons per day. Actual flow is 1,000 gallons per day.

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Permits in Missouri are issued by the Director of the Department of Natural Resources under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended).

10 CSR 20-7.031 Missouri Water Quality Standards, Missouri Department of Natural Resources (the Department) "defines the Clean Water Commission water quality objectives in terms of water uses to be maintained and the criteria to protect those uses." The receiving stream's beneficial water uses to be maintained are livestock and wildlife watering, protection of aquatic life, Whole Body Contact Recreation, and Secondary Contact Recreation.

To protect these beneficial uses and the water quality of the receiving stream, effluent limitations are being established under federal and state laws.

EFFLUENT LIMIT DERIVATION & RATIONALE

Permit limits have been retained from the previous permit. A Water Quality Review Sheet was therefore not developed. Monitoring requirements have been added for ammonia due to the adoption of the U. S. Environmental Agency's "1999 Update of Ambient Water Quality Criteria for Ammonia". Monitoring requirements have also been added for temperature. The Moreau River was on the A list for Whole Body Contact Recreation. A Use Attainable Analysis Study has been completed for the Moreau River in Cole County. The Whole Body Contact Recreation Use has not been removed. A Total Maximum Daily Load Information Sheet was not established for the Moreau River in Cole County. This facility is less than two miles from the Moreau River. Therefore, fecal coliform monitoring and limits were included in the effluent requirements for this permit on a three-year schedule of compliance.

This permit will be issued for a period of <u>five</u> years.